

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
REQUEST FOR FILING APPLICATION UNDER 37 CFR 53

08/815468



Atty. Dkt. 36-1011
C# M#
Date: March 11, 1997

This is a request for filing a new PATENT APPLICATION under Rule 53 entitled:
AN INTERNET SERVER AND METHOD OF CONTROLLING AN INTERNET SERVER
without a filing fee and/or without an executed inventor's oath/declaration.

This application is made by the below-identified inventor(s). Attached hereto are the following papers:

- [☒] An abstract together with
14 pages of specification and claims including
28 numbered claims and also attached is/are
7 sheets of accompanying drawings.
[☒] This application is based on the following prior foreign application(s):
Application Number Country
9607152.7 Great Britain

Day/Month/Year Filed
4 April 1996

respectively, and priority is hereby claimed therefrom.

- [] Certified copy/ies of foreign applications attached.
[☒] This application is a [] continuation/[] division/[☒] continuation-in-part of application
Serial No. 08/684,257, filed July 19, 1996.
[] Please amend the specification by inserting before the first line:
--This application is a [] continuation/[] division/[] continuation-in-part of application
Serial No., filed .
[] Please amend the specification by inserting before the first line: --This is a continuation of PCT
application No. PCT/, filed .
[☒] Preliminary amendment to claims (attached hereto), to be entered before calculation of the fee
[☒] Also attached: PTO-1449 and copies of references

01. Inventor:

Stuart
(first)

J.
MI

ANTCLIFF
(last)

British
(citizenship)
England

Residence: (city) Suffolk (state/country)
Post office Address: 2 Blakes Close, Melton, Woodbridge, Suffolk, England
(incl zip code) IP12 1RQ

02. Inventor:

John
(first)

C.
MI

REGNAULT
(last)

British
(citizenship)

Residence: (city) Suffolk (state/country)
Post office Address: 51 Woodbridge Road, Newbourne, Woodbridge, Suffolk, England
(incl zip code) IP12 4PA

03. Inventor:

Laurence
(first)

D.
MI

BRADLEY
(last)

British
(citizenship)
England

Residence: (city) Suffolk (state/country)
Post office Address: 15 Kentwell Close, Ipswich, Suffolk, England
(incl zip code) IP4 5BQ

04. Inventor:

(first)

MI

(last)

(citizenship)

Residence: (city) (state/country)
Post office Address:
(incl zip code)

NOTE: FOR ADDITIONAL INVENTORS, check box ☐ and attach sheet with same information.

Address all future communications to NIXON & VANDERHYE P.C., 1100 North Glebe Road, 8th Floor,
Arlington, Virginia 22201.

1100 N. Glebe Road
8th Floor
Arlington, Virginia 22201
Telephone: (703) 816-4000
Facsimile: (703) 816-4100
LSN:vsc

NIXON & VANDERHYE P.C.
By Atty.: Larry S. Nixon, Reg. No. 25,640

Signature: Larry S. Nixon



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Stuart J. ANTCLIFF et al

Atty. Ref.: 36-1011

Serial No. (To be Assigned)

Group:

Filed: 11 March 1997

Examiner:

For: AN INTERNET SERVER AND METHOD OF
CONTROLLING AN INTERNET SERVER

March 11, 1997

Honorable Commissioner of Patents
and Trademarks
Washington, DC 20231

PRELIMINARY AMENDMENT

Sir:

In order to place the above-identified application in better condition for examination, please amend the above-identified application as follows:

IN THE SPECIFICATION:

Page 1, before numbered line 4, insert:

--RELATED APPLICATION

This application is a continuation-in-part of our earlier copending commonly assigned U.S. application Serial No. 08/684,257 filed July 19, 1996.

BACKGROUND OF THE INVENTION

1. Field of the Invention--; and

after numbered line 5, insert:

--2. Related Art--.

IN THE CLAIMS:

Claim 3, line 1, delete "or 2".

Claim 4, line 1, delete "or 2"

Claim 6, line 1, delete "or claim 5".

Claim 7, line 1, delete "any preceding claim" and insert --claim 1--.

Claim 8, line 1, delete "any preceding claim" and insert --claim 1--.

Claim 12, line 1, delete "any preceding claim" and insert --claim 1--.

Claim 14, line 1, delete "or claim 13".

Claim 17, line 1, delete "or 16".

Claim 18, line 1, delete "or 16".

Claim 20, line 1, delete "or claim 19".

Claim 21, line 1, delete "any one of claims 15 to 20" and insert --claim 15--.

Claim 22, line 1, delete "any one of claims 15 to 21" and insert --claim 15--.

Claim 26, line 1, delete "any of claims 15 to 25" and insert --claim 15--.

Claim 28, line 1, delete "or claim 26".

0159959.01

Stuart J. ANTCLIFF et al
Serial No. (To be Assigned)

REMARKS

Attention is directed to the attached references cited in parent application
Serial No. 08/684,257 and the accompanying PTO-1449. Official consideration and
citation of each such reference is respectfully requested.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By:



Larry S. Nixon
Reg. No. 25,640

LSN:vsc
1100 North Glebe Road, 8th Floor
Arlington, VA 22201-4714
Telephone: (703) 816-4000
Facsimile: (703) 816-4100

087815468

Our Ref: 36-1011



U.S. PATENT APPLICATION

Inventor(s): ***Stuart James ANTCLIFF***
 John Christopher REGNAULT
 Laurence Daniel BRADLEY

Invention: ***AN/INTERNET SERVER AND METHOD OF CONTROLLING***
 AN INTERNET SERVER

NIXON & VANDERHYE P.C.
ATTORNEYS AT LAW
1100 NORTH GLEBE ROAD
8TH FLOOR
ARLINGTON, VIRGINIA 22201-4714
(703) 816-4000
Telecopier (703) 816-4100

SPECIFICATION



AN INTERNET SERVER AND METHOD OF CONTROLLING
AN INTERNET SERVER

The present invention relates to an internet server and method of controlling
5 the internet server.

The internet has developed rapidly over the past few years and has resulted
in increased traffic over telecommunications networks. One particular factor which
has made the internet more 'user friendly' is the development of the World Wide
Web (WWW) service which uses the HyperText Transfer Protocol (HTTP)
10 specification. In order to utilise the WWW service, the user will utilize what is
termed a browser, which is software which can interpret hypertext mark-up
language (HTML) files which are sent from an internet WWW server to create a web
page on the screen of the user's computer. Figure 1 illustrates a typical internet
configuration wherein a user is connected to the internet and uses the WWW service
15 using a browser 1.

In order to initiate the generation of a web page, i.e. to connect to a WWW
server such as first server 2, which has a low storage and processor capacity and is
linked to the internet via a low bandwidth connection, a request for an HTML file
must be transmitted by the browser 1 to the WWW server 2. In order to identify
20 and locate a file in a server from amongst the servers connected to the internet, the
file is identified by a universal resource locator (URL). The URL is structured to
identify the protocol (which in this case is HTTP), the internet server, the directory of
the file in the internet server and the file name. Thus the URL structure is:

http://internet server/directory/file name

25 When a URL is selected by a user, the browser 1 transmits a file request
over the internet to the first server 2 which has the address identified in the URL of
the file requested in a HTML file. The first server 2 will then send the HTML file to
the browser 1. The browser 1 then interprets the HTML file in order to generate a
web page.

30 The HTML specification allows for text to be displayed and for hypertext
links to be included in the web page. Also, the HTML protocol allows graphics or
image files to be included in the web page displayed by the browser 1. The HTML
protocol thus allows for image files which are to be displayed by the browser 1 to be

identified by their URL. When the browser 1 interprets the HTML file returned from the first server 2, if the HTML file includes image URL's, the browser 1 will seek to retrieve the image files using the URL of the image file. Thus, the image or graphics files are retrieved separately to the HTML file and when a web page is displayed by the browser 1, the graphics included in the web page can take longer to display as the file is retrieved after the HTML file.

Since the image file required to complete the web page is identified by a URL there is no requirement for the image file to be located at the first server 2 which supplied the HTML file. Because image or graphics files can be quite large files, the transmission of such files over the internet can take a significant period of time when transmitted over a route with a relatively limited data rate. The ability of a browser 1 to locate and retrieve image or graphics files which are referred to in the web page and which are located anywhere in the internet, allows an internet server providing web pages to utilize this to avoid having to store image or graphics files required to complete the web page created by the HTML file. Further, such a first server can be connected to the internet over a low bandwidth connection without risking a bottleneck. A second server 3 in the internet which has a high storage and processor capacity which hosts the graphics or image files referred to in the web page is thus the subject of bandwidth-consuming graphic file requests from the browser. Such a second server 3 can for instance be an internet server which is connected to the internet over a high bandwidth connection.

Figure 2 illustrates in more detail a method of operation when such a system of referring to graphics pages at another server is used.

When the browser 1 is initialised, a URL for an HTML file is input or selected by a user in step S1. The browser then requests connection to the server identified in the URL in step S2 and in step S3 the browser connects to the server. The browser then sends a request for the HTML file in step S4 and in step S5 the server sends the HTML file which is then interpreted by the browser in step S6. The web page generated by the interpretation of the HTML file is then displayed in step S7. At this point the web page will include only the text and the hypertext links. In step S8 the browser determines whether the HTML file refers to any image URLs. If not, the browser will await to determine whether any URL is selected for instance using the hypertext links in step S9. If a new URL is selected in step S9 the browser

returns to step S2 to request a connection to the same or another server. If no new URL is selected the browser will end requesting files in step S10. If in step S8 it is determined that the HTML file refers to image or graphics URLs, in step S11 the browser requests connection to the second server 3 (or other servers) identified in the URL of the image file. In step S12 the browser connects to the second server 3 (or other servers) and in step S13 the browser 1 sends a request for the image file. The second server 3 then sends the requested image file in step S14 and in step S15 the browser displays the image file within the web page. Step S8 and steps S11 to S15 will be carried out simultaneously to retrieve as many image files as are required, i.e. referred to in the HTML file, in order to complete the web page.

It will be seen from the above that the ability of the HTML protocol to allow an HTML file to refer to image files at any server connected to the internet using the URL, allows the first server 2 to make use of image or graphics files in the second server 3 thus reducing the cost of storage at the first server 2. The first server requires less processing time and less bandwidth to deliver the complete web page to the browser 1. Also, the development of web pages by the operator of the first server 2 is easier and cheaper, since there is no need for the operator to create custom artwork. They are simply able to use images available on other servers.

In accordance with one aspect, the present invention provides a method of controlling a server connected to the internet, comprising the steps of

receiving a file request from a user over the internet;

determining if the file request includes an identification signal identifying the origin of the file request;

comparing any said identification signal with one or more predetermined identification signals; and

deciding what file if any is to be transmitted to said user in dependence upon said determining and comparing steps, and if in the deciding step it is decided that a file is to be transmitted, transmitting said file from said server to said user.

The present invention therefore allows the control of access to image or graphics files, or any other high bandwidth files such as digitized sounds or movies.

The file request may be a hypertext transfer protocol file request from a web browser over the internet and the identification signal may identify a web page from

which the file request was made. The file to be transmitted is then transmitted to the web browser of the user.

In a preferred embodiment, the file sent to a user may be customised by a server, thus customising the web page displayed by a user's browser, in dependence upon the route taken in arriving at the web page to be displayed i.e. in dependence upon the previous web page.

In accordance with a second aspect, the present invention provides an internet server for connection to the internet comprising

receiver means for receiving a file request from a user over the internet;

10 determining means for determining if the file requested includes an identification signal identifying the origin of the file request;

comparison means for comparing any said identification signal with one or more predetermined identification signals;

15 decision means responsive to said comparison means for deciding what file if any is to be transmitted to said user; and

an output for outputting a file for transmission to said user if said decision means decides that said file is to be transmitted.

The present inventors have realised that the HTTP protocol provides that the URL of the HTML file which refers to any image or digitised sound file is included as a 'referrer' address when a request for a file is made to an internet server. Also, the address of the web page is included as a referrer address when a further web page is requested i.e. a further HTML file is requested, using the hypertext links in the web page. Thus, when a file request is made to an internet server, most commercial web browsers e.g. Netscape (trade mark) will comply with the HTTP protocol and will transmit the URL for the web page currently being interpreted by the browser. Thus, the referrer address or URL can be used to identify the route taken in requesting the file from the internet server. This allows the possibility of identifying a first server which is trying to incorporate graphics files from a second server. By interrogating the referrer address, a second server is able to control access to the requested files. This enables the second server to prevent the files being sent. Instead a warning message can be sent, warning that access to the file has been denied. The ability of a second server to identify the originating server allows an operator of a second server to require an operator of a first server to subscribe to allow access to files.

The details on the access allowed to the originating server can be stored in a second server to allow the second server to determine at what level access should be allowed to what files.

In addition to the possibility of controlling access to image or sound, or other high bandwidth files, the referrer details transmitted with the file request may inform the server of the web page from which a file request is being made. Thus, if a HTML file is requested from a web page, the server is able to identify from which web page the HTML file request is made and customise the HTML file accordingly. For instance, if the browser requests a HTML file and generates a web page which includes details of a company, the details which are to be displayed can be tailored in dependence upon the current web page being displayed by the browser which could for instance be financial information. The HTML file then transmitted to the browser could be selected from amongst a library of HTML files or specifically generated or tailored to suit the originating web page.

Embodiments of the present invention will now be described by way of example only with reference to the accompanying drawings in which:-

Figure 1 is a schematic drawing of the interconnection of a browser with servers over the internet;

Figure 2 is a flow diagram illustrating the operation of the browser and the servers in accordance with the prior art;

Figure 3 is a flow diagram illustrating the operation of the browser and servers according to one method of the present invention;

Figure 4 is a flow diagram illustrating in more detail the operation of the browser and the servers over the internet in accordance with a first embodiment of the present invention;

Figure 5 is a flow diagram illustrating the operation of the browser and the servers over the internet in accordance with a second embodiment of the present invention;

Figure 6 is a flow diagram illustrating a further method of operating the browser and servers over the internet in accordance with a third embodiment of the present invention; and

Figure 7 shows a function block diagram of an internet server according to one embodiment of the invention.

Figure 3 illustrates one general method in accordance with the present invention. In step S20 a URL or a HTML file is input or selected by a user from the browser. The browser then requests connection to a server identified in the URL in step S21 and in step S22 the browser connects to the server. The browser then
5 sends a request for the HTML file in step S23 and the server sends the HTML file in step S24. The browser then interprets the HTML file in step S25 and displays the web page in step S26. At this point the web page will include only the text and hypertext links. In step S27 it is then determined whether the HTML file refers to any URL's for image files or sound files in step S27. If no files are referred to by the
10 HTML file i.e the web page contains purely text, the browser will determine whether there is a new URL selected in step S28 either manually or via a hypertext link. If a new URL is selected the browser returns to step S21 to request connection to a server. If no new URL is selected the browser will end requesting files in step S29.

If in step S27 it is determined that the HTML file refers to a URL for one or
15 more image files, in step S30 the browser requests connection to another server or servers identified in the URL for the image file. The browser then connects to the other server (or servers) in step S31 and in step S32 the browser sends a request for the image file. In the HTTP protocol, the request for a file includes referrer details which is the URL of the HTML file from which the request originated. In step S33
20 the server looks at this referrer address and decides what file to send to the browser using the referrer address in step S34. Once the server has decided what file to send to the browser in step S35 the server sends the image file which is then displayed in the web page by the browser in step S36. Steps S27 and S30 to S36 are carried out with one or more servers to acquire all of the image files necessary in
25 order to complete the web page.

Thus in this method a web page refers to image files in another server for completing the web page displayed by the browser. Since the HTTP protocol provides for the transmission of the URL of the HTML file currently being interpreted by the browser, the server which receives the request for the image file can
30 determine the origin of the request i.e. which is the originating server, and can thus decide whether access to the image file is allowed. This is shown in more detail in Figure 4 where like steps are given like reference numerals. In Figure 4 step S34 is shown in more detail by steps S34A, S34B and S34C. In step S34A the server

compares the referrer address with the allowed addresses i.e. the server stores a table of server addresses identifying the files which the servers are allowed access to. In step S34B it is determined whether access is allowed or not. If access is allowed in step S35 the server sends the requested image file. If however in step 5 S34B it is determined that access is not allowed, then the server will send a dummy file for display by the web page in step S34C. Such a dummy file can include a warning that access to the requested image file has not been allowed. Alternatively, if the file is a sound file, instead of the requested digitized sound, a sound file transmitted could include a simple audio warning or statement that access to the 10 requested file has been denied. A benefit of transmitting a dummy file instead of the requested file is that the size of the dummy file can be considerably smaller than the size of the requested file e.g. 1 Kbyte as opposed to 10's to 100's of Kbytes. This provides a bandwidth saving for the server.

In this way, a server is able to control access to its files over the internet. If 15 a server is accessed directly e.g. by typing in a URL, then there will be no referrer address sent. In this case, the server can recognise that no referrer address has been sent and allow a predetermined level of access to files. For instance, a URL which has been directly entered could be a URL for an image file i.e. the user is attempting to directly download an image file from the server. It can thus be 20 predetermined whether such direct access is allowed by setting the level of access to files for file requests which do not have a referrer address associated with them.

The ability of a server containing image files, which can either be directly accessed or referred to by other servers, to identify the origin of the request for a file allows the server to provide a subscription service for access to files. The server can 25 be segregated into areas that provide images for any subscriber, one particular subscriber only, subscribers paying for enhanced package, or anyone i.e. a free service. This control will also be beneficial to server owners who refer to other servers for files since owners of the servers containing the files would be encouraged to develop the library of files available to subscribers. Not all server 30 owners would therefore need to generate their own library but can simply subscribe to the servers containing the desired files thereby gaining access to a large range of images, movies and sounds etc which can be incorporated into their web pages. This system also provides a platform for providing copyright protected images and

sounds allowing authors or artists payment for their work. Further, the distribution of services over the internet in this manner allows for the efficient use of the internet since the server providing the files to a referrer can be connected to the internet over a high bandwidth connection thus allowing other servers to be connected over low
5 bandwidth connections. This makes efficient use of internet connections and avoids bottlenecks.

Referring now to Figure 5, a second method is illustrated allowing the customisation of web pages depending on the route by which the web page is arrived at.

10 In Figure 5 in step S40 the URL for the HTML file is input or selected by the user via the browser. The browser then requests connection to a server identified in the URL in step S41 and the browser connects to the server in step S42. The browser sends a request for the HTML file in step S43 and the server sends the HTML file in step S44. The browser then interprets the HTML file in step S45 and in
15 step S46 the browser displays the web page. The web page displayed in step S46 will include text and hypertext links. Also, images can be included in the web page and can be retrieved from a server in a manner described hereinabove with reference to either the prior art Figure 2, or Figures 3 or 4.

In step S47 it is determined whether another HTML file is requested by a
20 user who has selected a hypertext link in the web page. If another HTML file is requested, the HTML file has a URL and in step S50 the browser requests connection to another server identified in the URL. The browser then connects to the other server in step S51 and in step S52 the browser sends a request for the HTML file. The server then looks at the referrer address which refers to the URL of
25 the HTML file which is currently being displayed by the web page (step S46) and the server runs an application using the referrer address in step S54 and in step S55 the server generates a HTML file which is then sent in step S56 to the browser. The browser can then interpret the HTML file in step S45 and display a new web page in step S46.

30 In this method, since the server refers to the referrer address to determine which application to run, the HTML file sent to the browser can be customised in dependence upon the web page from which the request for a new web page was made. In this embodiment the server runs an application which takes in the referrer

address and generates a new HTML file. However, an alternative method of sending a customised HTML file to the browser is illustrated in Figure 6.

In Figure 6 like reference numerals are used for the steps which are the same as those in Figure 5. This method differs from Figure 5 in that step S55 i.e. the generation of an HTML file is replaced with a step S57 of looking up an appropriate HTML file from a library of stored HTML files for referrer addresses.

Thus, the methods of Figures 5 and 6 allow a server to customise the web page displayed at a browser in dependence upon the previous web page. This would give the server an appearance of having some 'intelligence'.

Figure 7 shows an internet server 3 according to the invention. The internet server 3 has an input 301 for receiving via the internet a file request from a user, for instance by means of a browser 1. The file request is passed to an identification signal determiner 302 which determines if the file request includes an identification signal identifying the origin of the file request. For instance, if the file request conforms to the hypertext transfer protocol, the file request may include the URL of the page being displayed on the user's screen. This URL is the identification signal determined by the unit 302.

A comparator 304 then compares the identified identification signal in the input file request with predetermined identification signals stored in a store 306. Whether or not there is a match will determine which file stored in the file store 308 is transmitted to the user. The comparator 304 and the decision means 310 are controlled by a control unit 312. The comparator 304 informs the decision means 310 of the result of the comparison. The decision means 310 then interrogates the store 306 to determine to which files access allowed. If access to the requested file is allowed, the file is retrieved from the file store 308 and then transmitted to the user via an output 314 and the internet. The control of the decision means 310 has been described at length with reference to Figures 3 to 6.

The functional elements of the internet server may be implemented in hardware or software or a combination of both.

Although the present invention has been described with reference to specific embodiments, the present invention is not so limited and modifications which are clear to a skilled person in the art can be made without departing from the scope of the invention. In particular, the term "internet" is used generically and refers not

only to an international interconnected network of computers and servers but also to other interconnected networks, for instance so-called intranets - interconnected networks internal to an organisation. Furthermore, the term "web" is not intended to limit implementation of the invention to WWW applications. The invention may also
5 be applicable to FTP (File Transfer Protocol) and Telnet applications and other such future applications. This list is not intended to be exhaustive.

06/03/97 16:22 u:\patents\word\25153con.doc

CLAIMS

1. A method of controlling a server connected to the internet, comprising the steps of
 - 5 receiving a file request from a user over the internet;
determining if the file request includes an identification signal identifying the origin of the file request;
comparing any said identification signal with one or more predetermined identification signals; and
 - 10 deciding what file if any is to be transmitted to said user in dependence upon said determining and comparing steps, and if in the deciding step it is decided that a file is to be transmitted, transmitting said file from said server to said user.
2. A method as claimed in Claim 1 wherein the file request conforms to the
 - 15 hypertext transfer protocol.
3. A method as claimed in claim 1 or 2 wherein said file is transmitted only if a said identification signal matches a said predetermined identification signal.
- 20 4. A method as claimed in claim 1 or 2 wherein the file transmitted from said server is the file requested by the user if a said identification signal matches a said predetermined identification signal, otherwise the file transmitted is a dummy file.
5. A method as claimed in claim 4 wherein said dummy file contains a warning
 - 25 that access to the requested file has been denied.
6. A method as claimed in claim 4 or claim 5 wherein said dummy file has a substantially smaller size than the file requested by said user.
- 30 7. A method as claimed in any preceding claim wherein a look-up table contains said one or more predetermined identification signals and identifies the files which can be accessed by the or each predetermined identification signal.

8. A method as claimed in any preceding claim wherein the server has digitised image files or distributed sound files available for transmission over the internet, and the file requested is an image file or a sound file.

5 9. A method as claimed in claim 1 wherein the file requested is a hypertext mark up language file, the method including the step of determining what hypertext mark up language file is to be transmitted to said user in dependence upon the comparison step.

10 10. A method as claimed in claim 9 wherein said determining step comprises selecting a hypertext mark up language file for transmission from a plurality of stored hypertext mark up language files.

11. A method as claimed in claim 9 wherein said determining step comprises
15 generating a hypertext mark up language file for transmission in dependence upon the comparison step.

12. A method as claimed in any preceding claim wherein said identification
20 signal and said predetermined identification signal comprise hypertext transfer protocol identification signals.

13. A method as claimed in claim 12 wherein said hypertext transfer protocol
identification signal identifies as the origin a hypertext mark up language file being
run by said user's terminal to generate said web page.

25

14. A method as claimed in claim 12 or claim 13 wherein said hypertext transfer
protocol identification signal comprises the universal resource locator for a hypertext
mark up language file being run by said user's terminal.

30 15. An internet server for connection to the internet comprising
receiver means for receiving a file request from a user over the internet;
determining means for determining if the file requested includes an
identification signal identifying the origin of the file request;

comparison means for comparing any said identification signal with one or more predetermined identification signals;

decision means responsive to said comparison means for deciding what file if any is to be transmitted to said user; and

5 an output for outputting a file for transmission to said user if said decision means decides that said file is to be transmitted.

16. An internet server as claimed in Claim 15 wherein the receiving means is adapted to receive file requests conforming to the hypertext transfer protocol.

10

17. An internet server as claimed in claim 15 or 16 wherein said decision means is adapted to only transmit said file if a said identification signal matches a said predetermined identification signal.

15 18. An internet server as claimed in claim 15 or 16 wherein said decision means is adapted to transmit the file requested by said user if a said identification signal matches a said predetermined identification signal, or else to transmit a dummy file.

19. An internet server as claimed in claim 18 wherein said decision means is
20 adapted to transmit said dummy file containing a warning that access to the requested file has been denied.

20. An internet server as claimed in claim 18 or claim 19 wherein said dummy file has a substantially smaller size than the file requested by said user.

25

21. An internet server as claimed in any one of claims 15 to 20 including storage means for storing a look-up table containing said one or more predetermined identification signals and one or more files which can be accessed by the or each predetermined identification signal.

30

22. An internet server as claimed in any one of claims 15 to 21 wherein said internet server has digitised image files or digitised sound files stored in a storage means and available for transmission over the internet, said first receiver means

being adapted to receive a file request for a digitised image file or a digitised sound file.

23. An internet server as claimed in claim 15 wherein said first receiver means
5 is adapted to receive a file request for a hypertext mark up language file; including determining means responsive to said comparison means for determining what hypertext mark-up language file is to be transmitted to said user.

24. An internet server as claimed in claim 23 including storage means for storing
10 a plurality of hypertext mark-up language files wherein said determining means comprises selection means for selecting a hypertext mark-up language file for transmission from a plurality of hypertext mark-up language files stored in said storage means.

25. An internet server as claimed in claim 23 wherein said determining means
15 comprises generating means responsive to said comparison means for generating a hypertext mark-up language file for transmission.

26. An internet server as claimed in any of claims 15 to 25 wherein said
20 identification signal and said predetermined identification signal comprise hypertext transfer protocol identification signals.

27. An internet server as claimed in claim 26 wherein said hypertext transfer
25 protocol identification signal identifies a hypertext mark-up language file being run by said user to generate said web page.

28. An internet server as claimed in claim 25 or claim 26 wherein said hypertext
transfer protocol identification signal comprises the universal resource locator for a
hypertext mark-up language file being run by said user to generate said web page.

ABSTRACT

AN INTERNET SERVER AND METHOD OF CONTROLLING AN INTERNET SERVER

5 A method of controlling an internet server is disclosed wherein the server receives a hypertext transfer protocol file request from a web browser over the internet and any identification signal included with the hypertext transfer protocol file request. The identification signal is compared with one or more predetermined identification signals and depending upon the result of the comparison a file may be
10 transmitted from the server to the web browser.

Figure 4

06/03/97 16:22 u:\patents\word\25153con.doc

**DECLARATION AND POWER OF ATTORNEY
FOR PATENT APPLICATION
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

As a below named inventor, I hereby declare that my residence, post office address and citizenship are as stated below next to my name, and I believe I am the original first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

AN INTERNET SERVER AND METHOD OF CONTROLLING AN INTERNET SERVER

the specification of which (check applicable box(es))

☐ is attached hereto
☒ was filed on 11 March 1997 as U.S. Application Serial No. (To be Assigned) (Atty Dkt. No. 36-1011).
☐ was filed as PCT international application No. _____ on _____
 and (if applicable to U.S. or PCT application) was amended on _____

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above. I acknowledge the duty to disclose information which is material to the patentability of this application in accordance with 37 C.F.R. 1.56. I hereby claim foreign priority benefits under 35 U.S.C. 119/365 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed or, if no priority is claimed, before the filing date of this application:

Prior Foreign Application(s):

Application Number	Country	Day/Month/Year Filed
9607152.7	Great Britain	4 April 1996

I hereby claim the benefit under 35 U.S.C. §119(e) of any United States provisional application(s) listed below.

Application Number	Day/Month/Year Filed

I hereby claim the benefit under 35 U.S.C. 120/365 of all prior United States and PCT international applications listed above or below and, insofar as the subject matter of each of the claims of this application is not disclosed in such prior applications in the manner provided by the first paragraph of 35 U.S.C. §112, I acknowledge the duty to disclose material information as defined in 37 C.F.R. 1.56 which occurred between the filing date of the prior applications and the national or PCT international filing date of this application:

Prior U.S./PCT Application(s):

Application Serial No.	Day/Month/Year Filed	Status: patented, pending, abandoned
08/684,257	19 July 1996	Pending

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon. And I hereby appoint NIXON & VANDERHYE P.C., 1100 North Glebe Rd., 8th Floor, Arlington, VA 22201-4714, telephone number (703) 816-4000 (to whom all communications are to be directed), and the following attorneys thereof (of the same address) individually and collectively my attorneys to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith and with the resulting patent: Arthur R. Crawford, 25327; Larry S. Nixon, 25640; Robert A. Vanderhye, 27076; James T. Hosmer, 30184; Robert W. Faris, 31352; Richard G. Besha, 22770; Mark E. Nusbaum, 32348; Michael J. Keenan, 32106; Bryan H. Davidson, 30251; Stanley C. Spooner, 27393; Leonard C. Mitchard, 29009; Duane M. Byers, 33363; Paul J. Henon, 33626; Jeffrey H. Nelson, 30481; John R. Lastova, 33149; H. Warren Burnam, Jr., 29366; Thomas E. Byrne, 32205; Mary J. Wilson, 32955; J. Scott Davidson, 33488; Alan M. Kagen, 36178; William J. Griffin, 31260; Robert A. Molan, 29834.

1. Inventor's Signature: [Signature] Date: 3/5/97
 Inventor: 1-00 Stuart ANTCLIFF British
 (first) (last) (citizenship)
 Residence: (city) Suffolk GB2 (state/country) England
 Post Office Address: 2 Blakes Close, Melton, Woodbridge, Suffolk, England 57 LEWES CLOSE
 (Zip Code) IP12 4RQ GRAYS ESSEX GB2 RM17 6QG

2. Inventor's Signature: [Signature] Date: 3/5/97
 Inventor: 2-00 John C. REGNAULT British
 (first) (last) (citizenship)
 Residence: (city) Suffolk GB2 (state/country) England
 Post Office Address: 51 Woodbridge Road, Newbourne, Woodbridge, Suffolk, England
 (Zip Code) IP12 4PA

3. Inventor's Signature: [Signature] Date: 16th May 1997
 Inventor: 3-00 Laurence D. BRADLEY British
 (first) (last) (citizenship)
 Residence: (city) Suffolk GB2 (state/country) England
 Post Office Address: 15 Kentwell Close, Ipswich, Suffolk, England
 (Zip Code) IP4 5BQ

FOR ADDITIONAL INVENTORS, check box ☐ and attach sheet with same information and signature and date for each.

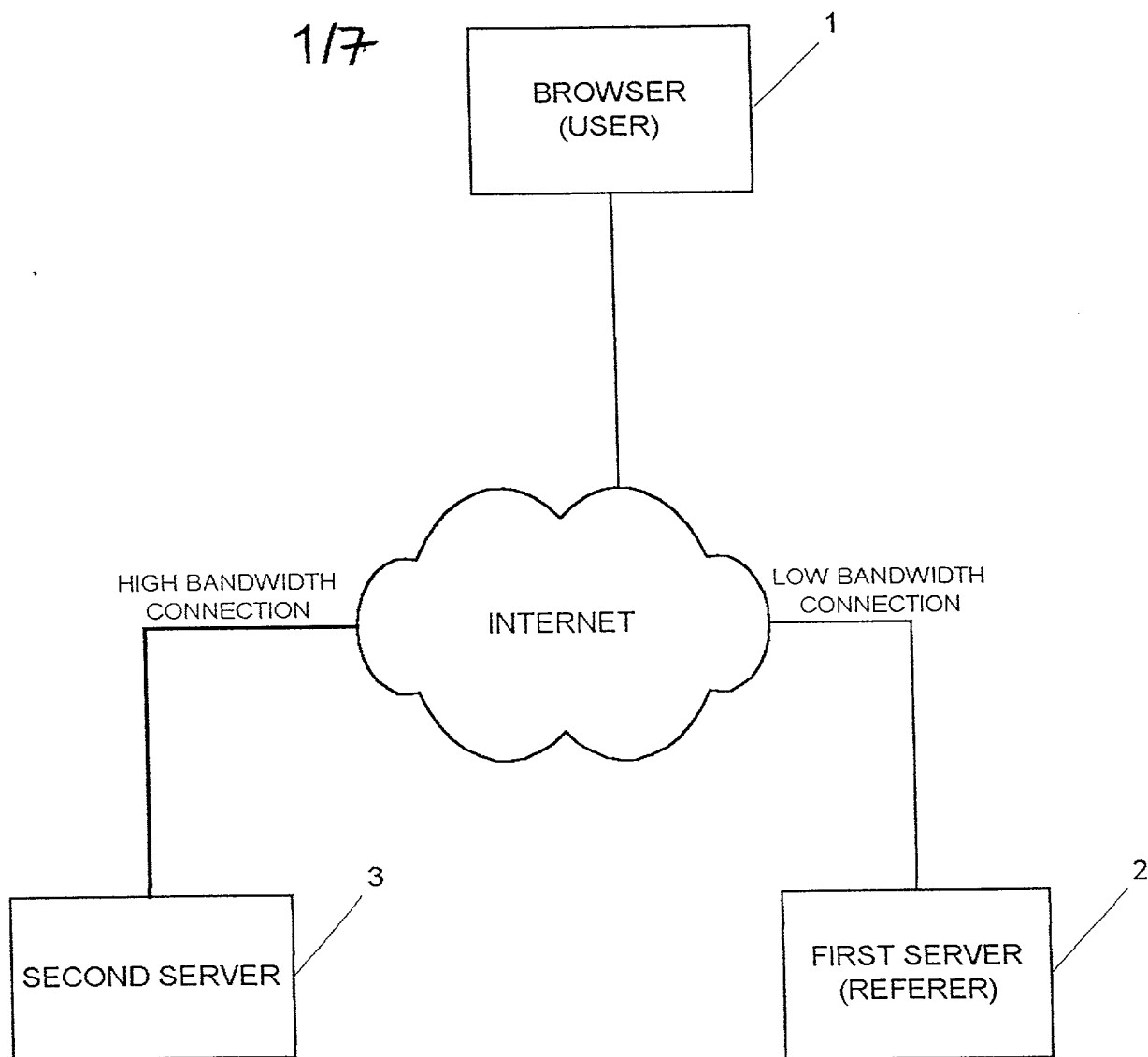
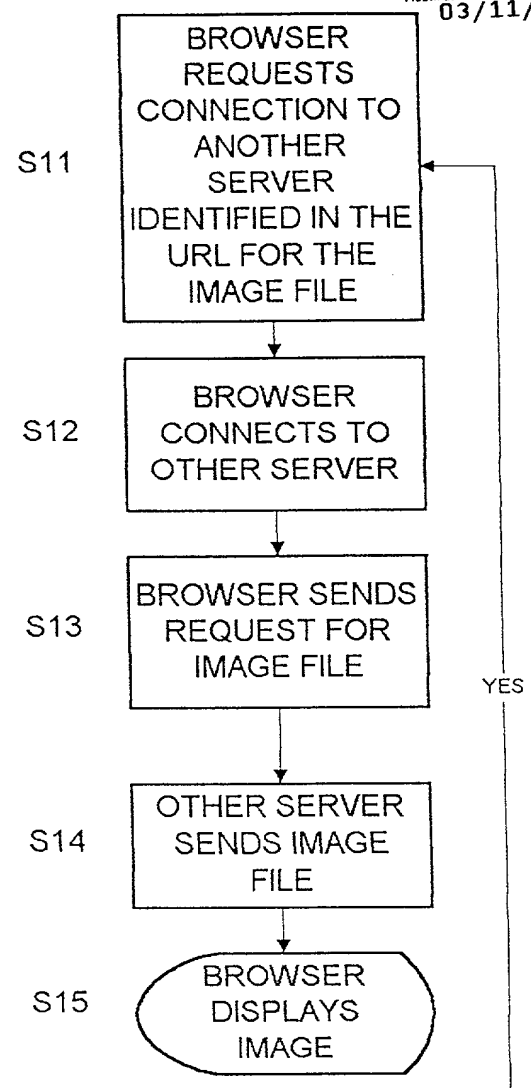
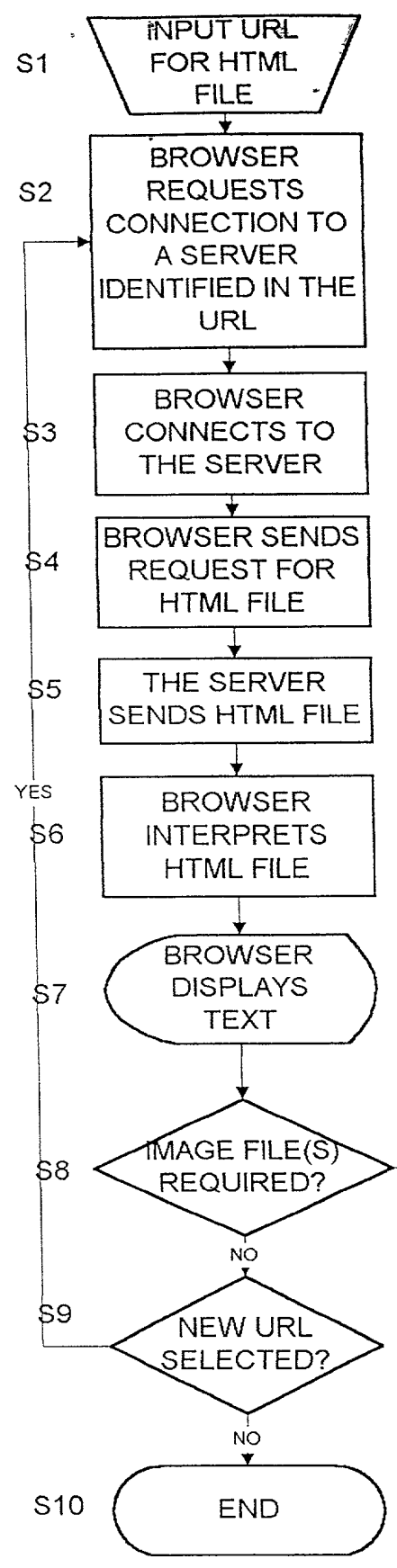


FIG 1

2/7



PRIOR ART

FIG 2

3/7

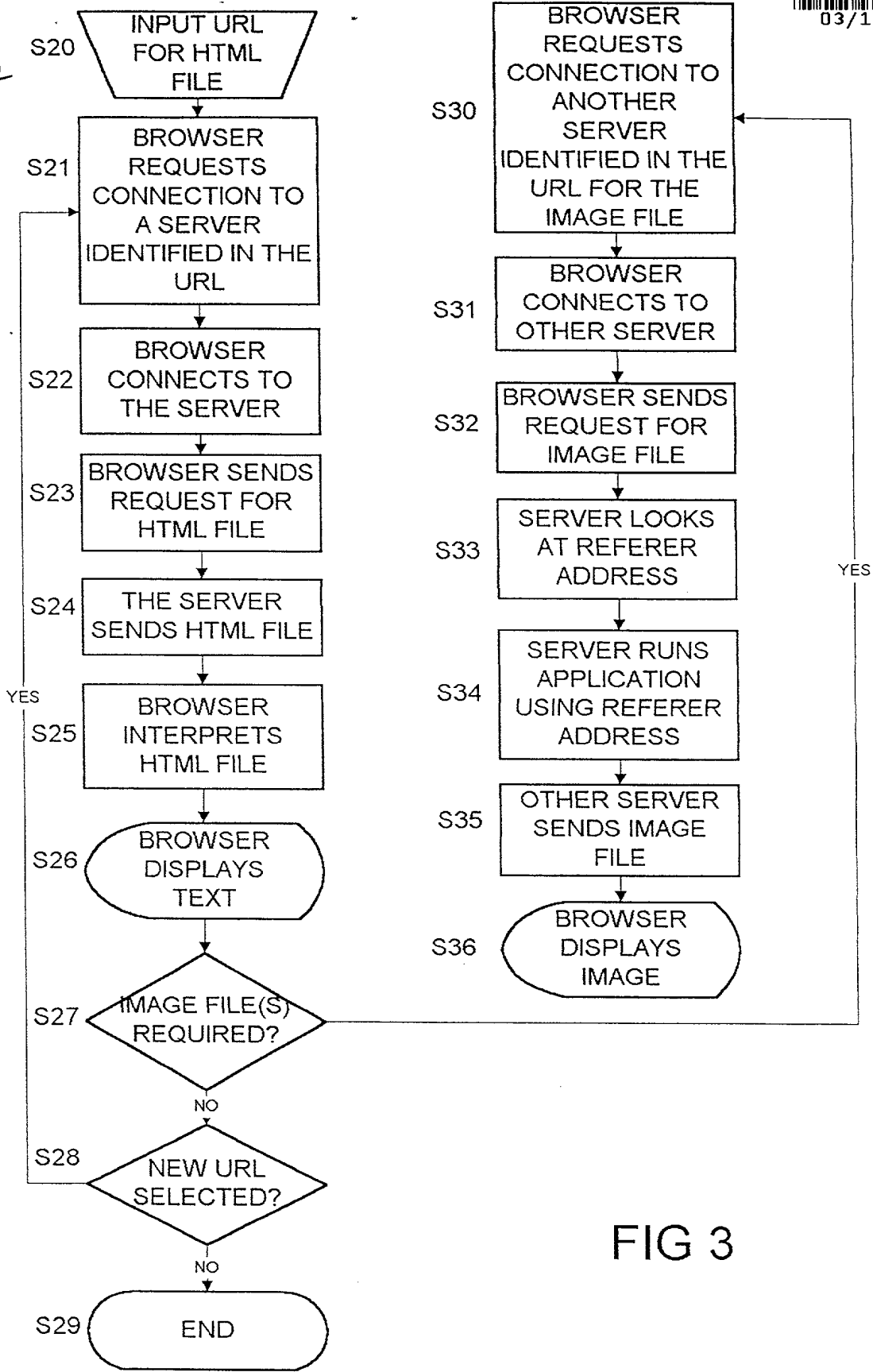


FIG 3

4/7

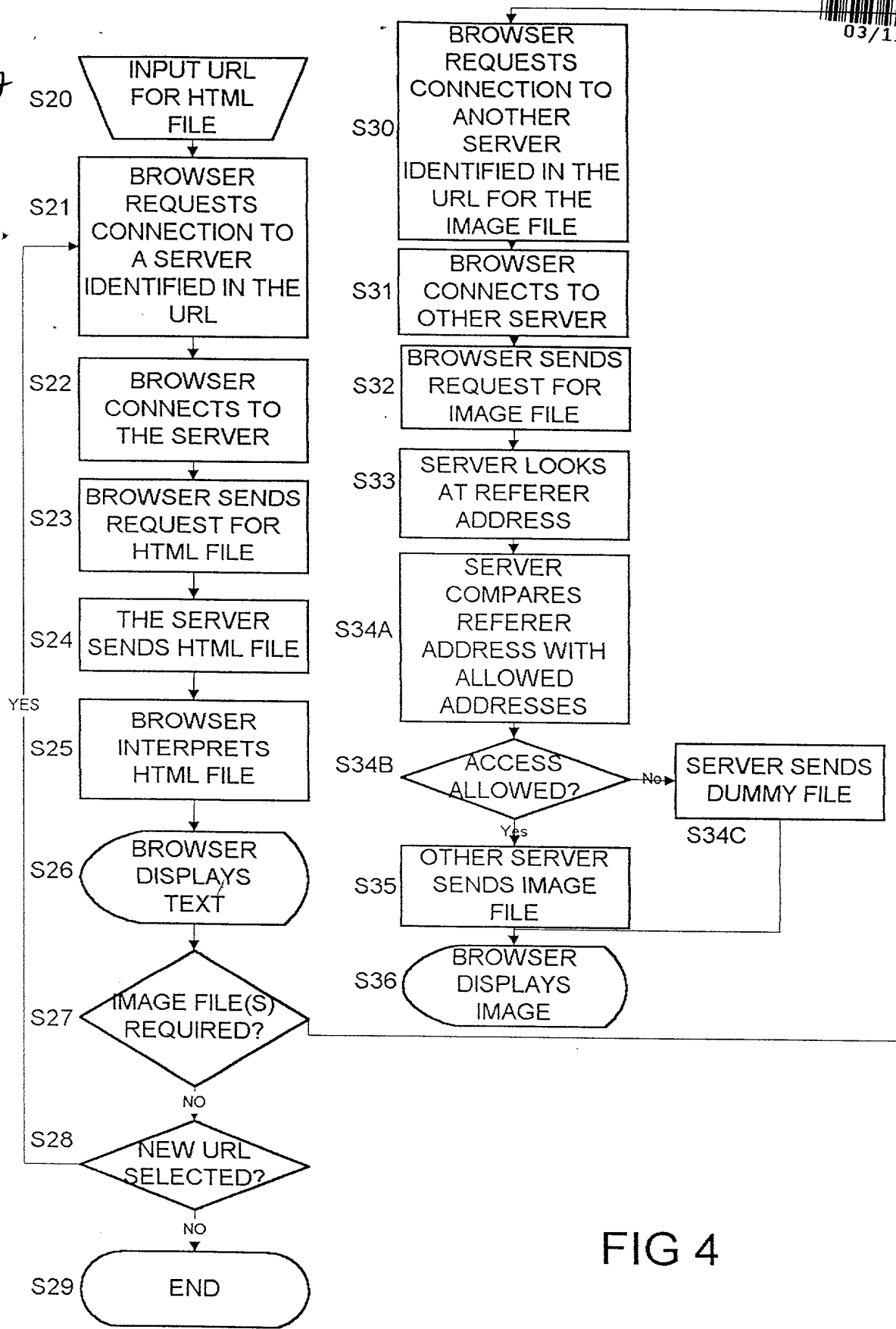


FIG 4

5/7

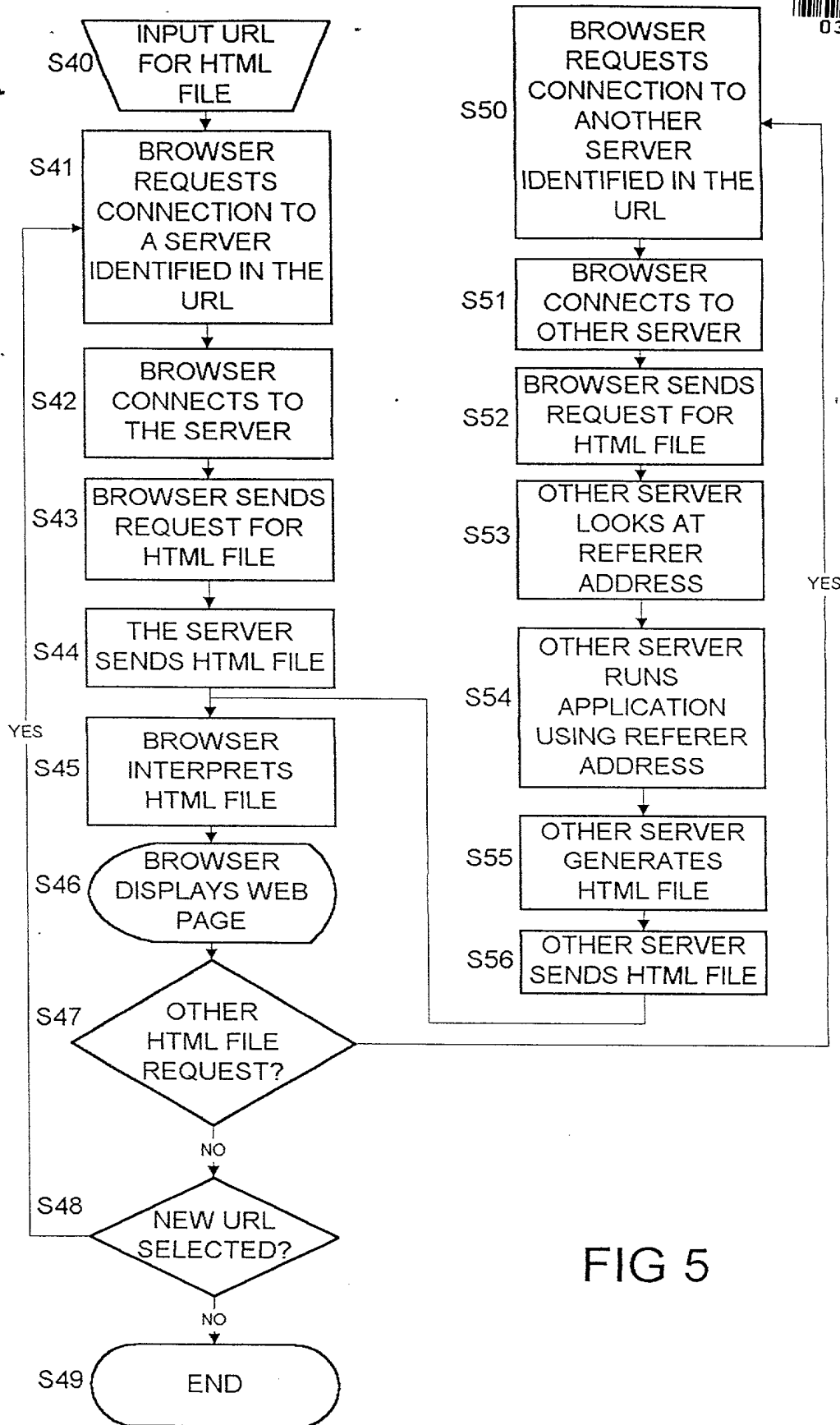


FIG 5

6/7

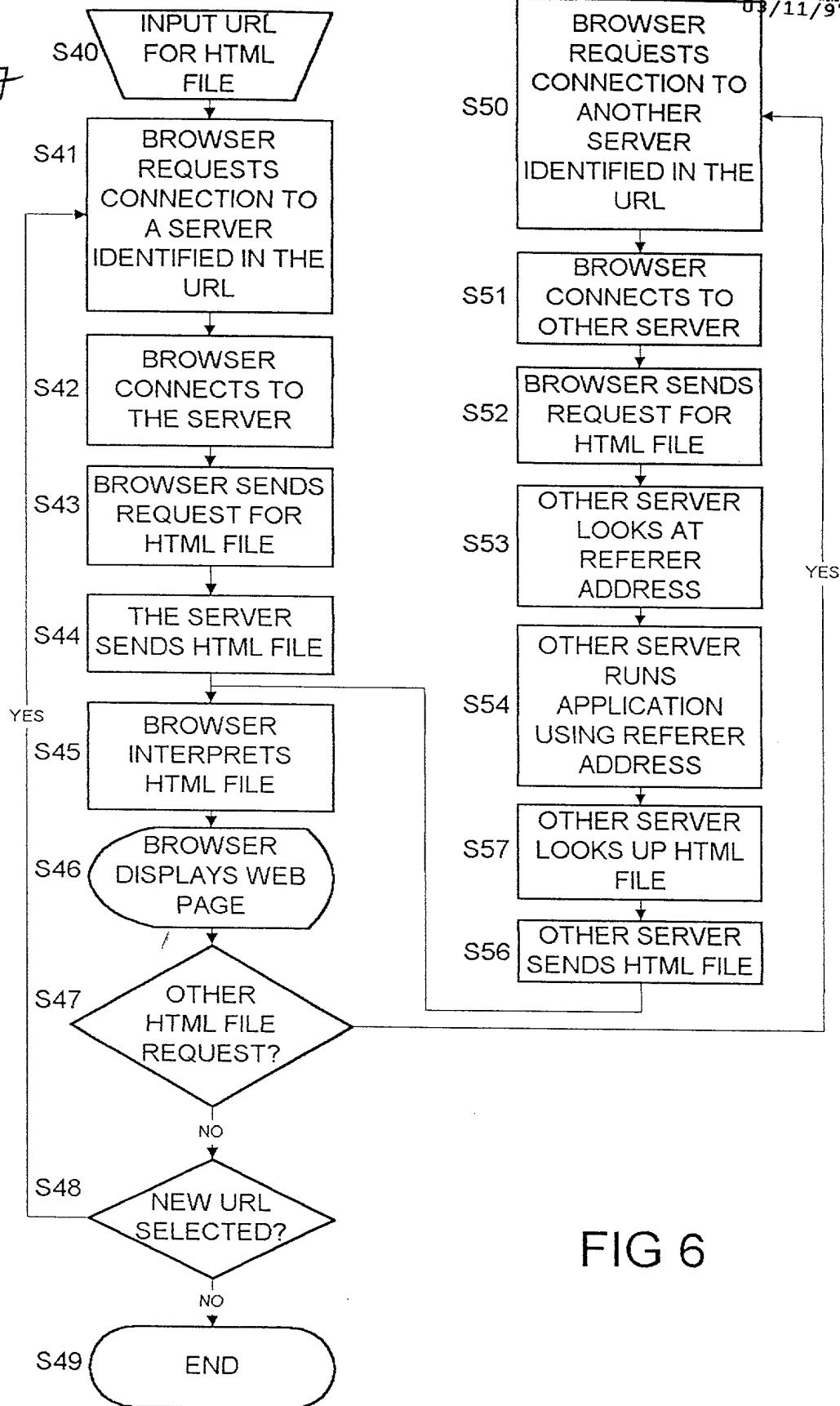


FIG 6

7/7

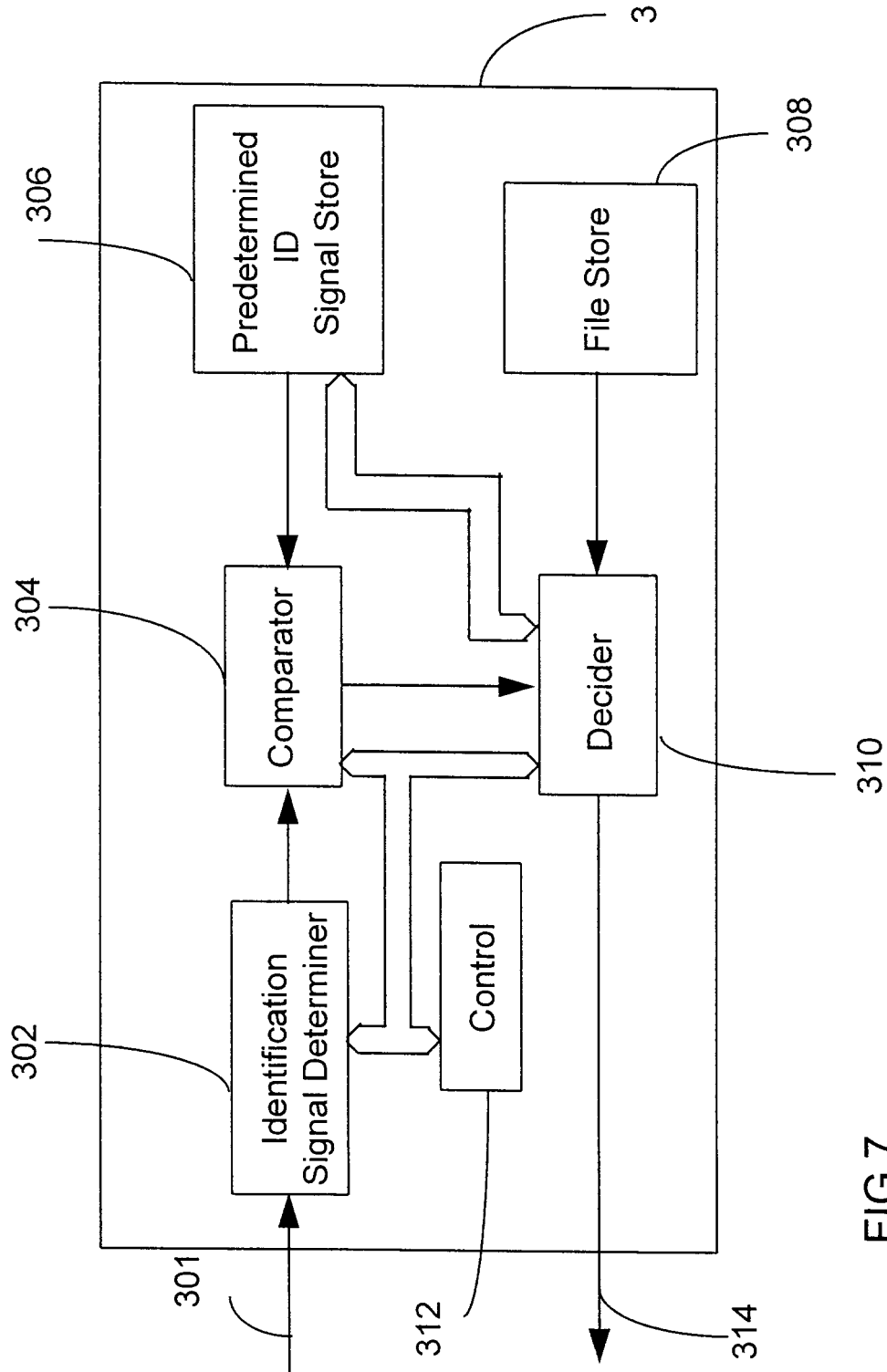


FIG 7